

**REMARKS**

Claims 4-7, 9-15, 19-21, 24 and 25 are pending in this application. The Applicant appreciates the Examiner's indication of allowance concerning claims 9 through 15 and 24.

**I. CLAIM REJECTIONS - 35 U.S.C. § 102**

Claims 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Dornier U.S. Patent 5,646,535. The Applicant respectfully traverses.

No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the **MPEP §2131**, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

A. Concerning claim 19, Dornier fails to disclose the selective display of the POST codes

when data inputted is a POST code. In Dornier, there is no choice of displaying or not displaying the POST codes on the indicators when the POST process starts while in claim 19 there is. As mentioned for example, in col. 3, lines 59-63 of Dornier, there is simply a display.

In paper no. 18, the Examiner disagreed and stated the following:

The selective display of any POST codes are directed upon the BIOS of the system. Dornier teaches in column 1, line 62 through column 2, line 4, that the POST routine is used to direct the changes to the LED's. The selectivity of different LED's according to POST code is done by the BIOS. Also, Dornier teaches in column 1, line 53, that a state of the LED may be off in response to the POST code. Therefore, the BIOS/POST routine selects an absence of a display of the LED as the resultant of the POST code. This fulfills the selected display of the LED as done by the BIOS. Therefore, all applicable rejected claims stand rejected.

The Examiner is stating that the selectivity of different LED's according to POST code is done by the BIOS, however, respectfully, claim 19 is stating : *selectively displaying the power-on self-test code through an indicator when data inputted is a power-on self-test code*. Therefore, when data inputted is a POST code, the POST code is selectively displayed through the indicator in claim 19. Selectively displaying is having the power or ability of selecting, of or characterized by selection and here it is the selection of displaying the POST code and not just merely selecting different LEDs.

As support for claim 19 in the specification, it is explained on page 9, line 17 through page 10, line 3, "According to the first embodiment of the present invention, the LED indicator 120 displays the POST codes, continually, during the POST process. However, it is possible to display the POST codes via the LED indicator 120, selectively, when a user wants." Further, on page 11,

lines 11-19, an example of a circuit for selective display of the POST code is given to support the claim of selective display.

The BIOS of a system does not selectively display the POST code as suggested by the Examiner, nor is it disclosed in the reference that the BIOS is performing such a task. If the Examiner is using his own knowledge of the operation of a BIOS, then it is right of the Applicant to respectfully ask that such be proven through a reference or an affidavit be provided by the Examiner. Under MPEP 2144.03, there are new procedures that the Examiner must take in providing substantial evidence when there is reliance on common knowledge in the art or "well known" prior art. If the Examiner here is stating such is known in art, then the Examiner has failed under the standards set under MPEP 2144.03.

The Examiner talks about the selectivity of different LEDs by the BIOS, but Dornier does not disclose the actual selectivity of displaying the POST code through and indicator when data is a POST code. On the contrary, Dornier is selecting different groups of routines of BIOS only, which is not exactly the same. Moreover, as cited in Dornier, "In a preferred embodiment the LEDs are used lighted (or not) in various available combinations in part in response to successful completion of selected sections of the POST routine in the system BIOS." Dornier also states, "Since these commands are interspersed at points in the POST routine between selected groups of tests in the routine, the continued changing of the on-off and color combinations of the LEDs indicates that the routine is proceeding normally. Moreover, the particular combination of on-off and color at any particular time, indicates the particular group of tests in progress." Clearly, Dornier is talking about

selected groups of tests, but not the selection or no selection of the actual display. The BIOS routines of Dornier, are continually being displayed as it says the indicating patterns of on-off LED and color of LEDs show that the tests are being performed or that the particular group of tests are in progress, but there is no disclosure of *selectively displaying the power-on self-test code through an indicator when data inputted is a power-on self-test code* as in the claimed invention. Never does one have the ability to select the display of the actual POST code. At any particular time according to Dornier the selected group of tests are in progress and being displayed through the LED.

The Examiner argues that the state of the LED may be off in response to the POST code and therefore, selected display of the LED. However, again, the claim is not stating an on or off state of an LED, but *selectively displaying the POST code*. Contrary to the Examiner's argument, the lack of display on the LED is still a "display" of the POST code according to Dornier as mentioned above the pattern of on-off state LED shows that the test is being performed and the on-off state actually is making a "display" of the POST code.

For example, Dornier states, "By using tri-state LEDs for the traditional power and hard disk activity LEDs, there are sixteen combinations (including LED off) of colors on off state that may be displayed, hence sixteen messages may be conveyed, rather than the two indications that are normally made, those being hard disk activity and power on." Therefore, the off state of the LED is actually one of the 16 messages and therefore, even when there is no power to one of the LED's, there is still a "display" of the POST code.

Furthermore, the claim states, selectively displaying the POST code. Earlier in the claim, concerning the POST code, starting the POST process and outputting the POST codes to display the POST codes. Therefore, in the claims, the selectively displayed POST code is also processed. In Dornier, the unselected group of tests are never processed and therefore, only because of the lack of processing, is there no display. All the processed tests generating a POST code are all displayed, which again shows that claim 19 is not anticipated by Dornier as all the features are not disclosed exactly as arranged in the claim.

B. Concerning claim 20, Dornier fails to disclose *said indicator being a plurality of light emitting diodes, with each power-on self-test code corresponding to a specific light emitting diode on the portable computer.*

The examiner in paper no. 18 disagreed, and stated the following:

Dornier teaches in column 1, lines 59-61, that one LED can be used in presenting POST operations. Therefore, by using just one LED for the POST routine, each code of the routine would have only one specific LED corresponding to it. Also, the present invention only cites six LED's for presenting POST codes. According to the present invention, if BIO/POST routine is utilized in this system, it can only have 6 POST codes if each code must have its own LED. Any more than six codes being performed upon a POST routine would require the sharing of an LED. The examiner respectfully presents this contradiction upon further examination of the specification, wherein, on page 8, paragraph 2, the specification cites POST codes to test various components such as a graphics controller, and various other chip sets in the system. LED's for these components are not enabled according to figure 2. The examiner advises the applicant that this feature is not enabled if the applicant's argument contends that every POST code must have its own LED. All applicable rejected claims stand rejected.

The Examiner states that lines 59-61 of col. 1 discloses that one LED can be used for POST

operations and therefore, by using just one LED for the POST routine, each code of the routine would have only one specific LED corresponding to it. However, respectfully, the Examiner is failing to take into account the entire text of the claim.

Respectfully, Dornier fails to disclose *each power-on self-test code corresponding to a specific light emitting diode on the portable computer* where claim 20 explicitly states that *said indicator being a plurality of light emitting diodes*. Therefore, claim 20 claims a plurality of LEDs with each POST code corresponding to a specific LED and not a single LED for all POST codes. The claim is not claiming a singular LED, but a plurality of LEDs where each POST code corresponds to a specific LED.

"There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 18 USPQ2d 1896 (Fed. Cir. 1991).

Accordingly, the rejection is deemed to be in error because the Examiner's assumption clearly indicates that there is a difference between the claimed invention and the reference disclosure and each and every element as set forth in the claim is not found, either expressly or inherently described, in Dornier. Therefore, the rejection should be withdrawn.

Furthermore, the Examiner's comment that by using just one LED for the POST routine, each code of the routine would have only one specific LED corresponding to it is also improper logic in that the claim mentions clearly a plurality of LED with each POST code corresponding to a specific LED.

The Examiner's statement that any more than six codes being performed upon a POST routine would require the sharing of an LED and that the examiner respectfully presents this contradiction upon further examination of the specification, wherein, on page 8, paragraph 2, the specification cites POST codes to test various components such as a graphics controller, and various other chip sets in the system, and that the LED's for these components are not enabled according to figure 2, and that the examiner advises the applicant that this feature is not enabled if the applicant's argument contends that every POST code must have its own LED.

Respectfully, this statement is highly improper as it is well settled that the above statements are incorrect. First, the specification at the end of the detailed description also states:

It should be understood that the description of the preferred embodiments is merely illustrative and that it should not be taken in a limiting sense. In the above detailed description, several specific details are set forth in order to provide a thorough understanding of the present invention. It will be obvious, however, to one skilled in the art that the present invention may be practiced without these specific details.

While the invention has been described in terms of an exemplary embodiment, it is contemplated that it may be practiced as outlined above with modifications within the spirit and scope of the appended claims.

Furthermore, it is well settled that the disclosure in an originally filed claim can be used as part of the disclosure as clearly mentioned in MPEP §608.04, "In establishing a disclosure, applicant may rely not only on the specification and drawing as filed but also on the original claims if their content justifies it." Therefore, contrary to Examiner's conclusion, the Applicant did have possession of the claimed invention. Therefore, since the language mentioned by the Examiner was included in the originally filed claims, it can be used as part of the disclosure and support of claims.

C. As per claim 21, Dornier fails to disclose *light emitting diodes sequentially aligned along a surface of the portable computer according to an order of operating states being tested by the portable computer.*

In paper no. 18, the examiner disagrees and states that Dornier teaches in column 2, lines 50-58, an LED display on the front panel of the computer and this teaching is further enhanced by figure 1, wherein the LED's are shown to be in sequential order.

However, neither figure 1 or lines 50-58 of col. 2, discloses the LED sequentially along a surface *according to an order of operating states being tested by the portable computer.*

Figure 1 shows references 23 which is the first LED for indicating power on and off and 25 is the second LED for indicating hard disk activity. However, nowhere in figure 1 is it disclosed that LEDs are sequential according to the operating states being tested. Furthermore, this is especially the case since Dornier also stated in col. 1 that one or both LEDs indicate specific error conditions during POST. The disclosure as a whole must be looked at.

Looking at lines 50-58 of col. 2, Dornier only states that first LED 23 is for indicating power on and off and 25 is the second LED for indicating hard disk activity and that both LEDs are tristate LEDs. There is no disclosure that the LED are sequential according to the operating states being tested. In Dornier, the second LED may be on, then the second and first together maybe on, etc, but there is no sequence of the arrangement of the LEDs. The Examiner is assuming that since there are only two LED's shown, then they must be sequentially arranged, however, no such disclose is made and especially since there is a disclosure that both could be on, such a sequential disclosure is not disclosed or even if the first is on, then the second maybe on and then the second again in another



color since the LED is tristate.

An explicit or inherent disclosure must be made and not an assumption in order to anticipate under 35USC§102.

As mentioned in claim 21, the present invention accommodates a rapid view of the progress of the POST, but in Dornier no such accommodation is met by the multicolored and multi-sequenced LEDs. One would actually need a manual to figure out what those LEDs in Dornier actually meant while such is not the case in the present invention. If only a single LED is used as suggested by the Examiner above, no such progress would be easily discernible unless one knows the color codes.

Furthermore, claim 21 is dependent on claims 20 and 19 and therefore, the features of claims 19 and 20 must also be taken into account with claim 21. Therefore, not only is the LED sequentially aligned according to the POST tests, but each POST code corresponds to a specific LED of the plurality of LEDs and the POST code is selectively displayed. All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970) and here, all the limitations taken together are not disclosed by Dornier.

## **II. REJECTION OF CLAIMS (35 U.S.C. § 103)**

Claims 4-7, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dornier in view of Nanno et al. U.S. Patent 5,553,294.

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. As per claim 4, Dornier fails to teach or suggest the selective display of the POST codes in response to the operating states. As shown for example, in figures 4A-4C, the post codes are simply displayed on the two LEDs with different color combination for each code. There is no

selection of whether there is a display of the actual POST code.

Claim 4 is claiming the selective display of the POST code and not just the selection of the LEDs as mentioned by the Examiner.

Claim 4 does mention the LED being selectively activated, but claim 4 also claims the controller managing the indicating device to selectively display the POST code.

In paper no. 18, the Examiner is stating that the selectivity of different LED's according to POST code is done by the BIOS. The Examiner states that the POST routine directs changes to the LED's and the selectivity of the different LED's is done by the BIOS. However, this is not what the claim is stating.

Respectfully the claim states : *a controller managing said indicating device to selectively display power-on self-test (POST) codes in response to operating states of the portable computer system, the power-on self-test codes being generated in power-on self-test process by a basic input-output system (BIOS) of the computer system.* Therefore, in response to operating states, the POST code is selectively displayed through the indicating device and such is managed by the controller. As mentioned above, selectively displaying is having the power of selecting or characterized by selection and here it is the selection of displaying the POST code and not just merely selecting different LEDs.

As mentioned above for claim 19, in claim 4 also, the specification supports claim 4 on page 9, line 17 through page 10, line 3, "According to the first embodiment of the present invention, the

LED indicator 120 displays the POST codes, continually, during the POST process. However, it is possible to display the POST codes via the LED indicator 120, selectively, when a user wants.” Further, on page 11, lines 11-19, an example of a circuit for selective display of the POST code is given to support the claim of selective display.

The BIOS of a system does not selectively display the POST codes that are already processed as suggested by the Examiner, nor is it taught or suggested in the reference that the BIOS is performing such a task. As mentioned for claim 19, in claim 4, respectfully, if the Examiner is using his own knowledge of the operation of a BIOS, then it is right of the Applicant to ask that such be proven through a reference or and affidavit be provided by the Examiner.

The Examiner mentions about the selectivity of different LEDs by the BIOS, but Dornier does not teach or suggest under 35USC§103 of the actual selectivity of displaying the POST code through and indicator when data is a POST code.

On the contrary, Dornier is selecting different groups of routines of BIOS only, which is not the same teaching or suggestion. Moreover, as taught in Dornier, “In a preferred embodiment the LEDs are used lighted (or not) in various available combinations in part in response to successful completion of selected sections of the POST routine in the system BIOS.” Dornier also states, “Since these commands are interspersed at points in the POST routine between selected groups of tests in the routine, the continued changing of the on-off and color combinations of the LEDs indicates that the routine is proceeding normally. Moreover, the particular combination of on-off and

color at any particular time, indicates the particular group of tests in progress.” Clearly, Dornier is teaching about selected groups of tests, but not the selection or no selection of the actual display of the POST codes. The BIOS routines of Dornier, are continually being displayed as it says the indicating patterns of on-off LED and color of LEDs show that the tests are being performed or that the particular group of tests are in progress, but there is no teaching or suggestion of *selectively display power-on self-test code in response to operating states* as in the claimed invention. Never does one have the ability to select the display of POST code. At any particular time according to Dornier the selected group of tests are in progress and being displayed through the LED.

Dornier also states, “By using tri-state LEDs for the traditional power and hard disk activity LEDs, there are sixteen combinations (including LED off) of colors on off state that may be displayed, hence sixteen messages may be conveyed, rather than the two indications that are normally made, those being hard disk activity and power on.” Therefore, the off state of the LED is actually one of the 16 messages and therefore, even when there is no power to one of the LED’s, there is still a “display” of the POST code.

The Examiner argues that the state of the LED may be off in response to the POST code and therefore, selected display of the LED. However, again, the claim is not stating an on or off state of an LED, but the selective display the POST code in response to a certain criteria. Contrary to the Examiner’s argument, the lack of display on the LED is still a “display” of the POST code according to Dornier as mentioned above the pattern of on-off state LED shows that the test is being performed

and the on-off state actually is making a “display” of the POST code and the text of Dornier mentioned above showing that the off state also signifies one of 16 possible messages. “Display” does not necessarily mean the same as power to the LED as taught by Dornier.

Furthermore, the claim states, selectively display POST codes. In claim 4, the claim also states, concerning POST codes, that the POST codes are generated by the POST process. Therefore, in the claims, the selectively displayed POST code is also processed. The selection to display is with the actual processed POST codes and not selection for processing. In Dornier, however, the unselected group of tests are never processed and therefore, because of the lack of processing, then such test results are not displayed.

Therefore, since Dornier fails to teach or suggest all of the claimed limitations, and Nanno also does not teach or suggest the above limitations, the combination fails in showing that claim 4 is obvious.

B. Concerning claim 5, the Dornier fails to teach or suggest *said indicator being a plurality of light emitting diodes, with each power-on self-test code corresponding to a specific light emitting diode on the portable computer.*

In col.1 62-66 to col. 2, lines 1-6 only states that the combination of the LEDs state *combination* are set according to the specific digital value. Therefore, clearly, Dornier fails to teach that each POST code corresponds to a specific LED. In fact by stating that a combination of LEDs

are needed to display the codes, there is a teaching away of having each POST code corresponding to a specific LED (singular LED, not plural as in Dornier). In the present invention, it is easier to discern the POST code while in Dornier, one has to use a map of key like in figure 5 showing the cumbersome template.

According to MPEP §2145, "It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). This portion of Dornier cannot be just ignored because according to MPEP §2141.02, "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)."

In paper no. 18, the examiner counters by stating for claim 20 that the lines 59-61 of col. 1 discloses that one LED can be used for POST operations and therefore, by using just one LED for the POST routine, each code of the routine would have only one specific LED corresponding to it. However, respectfully, the Examiner is failing to take into account the entire text of the claim.

Respectfully, Dornier fails to teach or suggest each power-on self-test code corresponding to a specific light emitting diode on the portable computer where claim 5 like claim 20 explicitly states that said indicator being a plurality of light emitting diodes. Therefore, claim 5 claims a plurality of LEDs with each POST code corresponding to a specific LED and not a single LED for all POST codes. The claim is not claiming a singular LED, but a plurality of LEDs where each POST code corresponds to a specific LED.

Furthermore, as mentioned above in a 35USC§103 rejection, the prior art reference must be considered in its entirety, i.e., as a whole. It is impermissible within the framework of §103 or §102 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art. *See In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965); see also *In re Mercer*, 515 F.2d 1161, 1165-66, 185 USPQ 774, 778 (CCPA 1975).

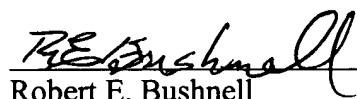
C. As per claim 6, please see the remarks concerning claim 21 above with regards to 35USC§103 as there is no teaching or suggestion of *light emitting diodes sequentially aligned along a surface of the portable computer according to an order of operating states being tested by the portable computer, the alignment accommodating a rapid view of a progress of the power-on self-test.*

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.



No fee is incurred by this Response. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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